



DEPARTMENT OF THE NAVY

OFFICE OF COUNSEL  
NAVAL UNDERSEA WARFARE CENTER DIVISION  
1176 HOWELL STREET  
NEWPORT RI 02841-1708

IN REPLY REFER TO.

MFO:amc  
Ser 3000C/P270  
Attorney Docket No. 78333  
14 July 2003

Assistant Commissioner for Patents  
Washington, DC 20231

Applicant: GREGORY H. AMES ET AL  
Serial No. 09/983,048  
Filed: 15 October 2001  
For: FIBER OPTIC CURVATURE SENSOR FOR  
TOWED HYDROPHONE ARRAYS

Sir:

There is submitted herewith an amendment in the above-identified application, which, if entered, adds additional claims(s) not previously paid for, as follows:

1. Total number of claims remaining in the application after this amendment is entered in excess of 20 and in excess of the number of claims for which a fee was previously paid, times \$18.00.....\$ 0
2. Total number of independent claims remaining in the application after this amendment is entered in excess of the number of claims for which a fee was previously paid, times \$84.00.....\$ 0

Kindly charge any additional fees to Deposit Account No. 14-0590.

Respectfully,

*James M. Kasischke*  
JAMES M. KASISCHKE  
Attorney of Record  
Reg. No. 36562

Encl:  
(1) Amendment

FAX RECEIVED

JUL 14 2003

TECHNOLOGY CENTER 2800

Attorney Docket No. 78333

14 July 2003

#5 *Amended*  
*2/20/03*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: GREGORY H. AMES ET AL. Group Art Unit: 2874  
Serial No.: 09/983,048 Examiner: E. Kim  
Filed: 15 October 2001 Fax Number: 703-872-9318  
For: FIBER OPTIC CURVATURE SENSOR FOR TOWED HYDROPHONE ARRAYS

AMENDMENT

FAX RECEIVED

To the Commissioner for Patents  
Alexandria, VA

JUL 14 2003

Dear Sir:

TECHNOLOGY CENTER 2800

In response to the Office Letter mailed 15 April 2003,  
amend the above-captioned patent applications as follows:

IN THE CLAIMS:

Amend claims 1, 15, 21 and 24 - 34 to read as follows:

1. (Amended) A system for detecting curvature in a towed  
hydrophone array, said system comprising:

at least two curvature sensors positioned along the length  
of the towed hydrophone array;

each of said curvature sensors comprising a bend member  
which bends as the array bends, at least one optical  
fiber within the bend member, and at least one

I hereby certify that this paper is being FACSIMILE transmitted to the  
Assistant Commissioner for Patents on the date shown below.

*Michael K. Ogles*  
APPLICANT'S ATTORNEY

*14 July 2003*  
DATE OF SIGNATURE